

AMENDED PATENT CLAIMS (Art. 19 PCT)

[received at the International Office on May 03, 2005;
original claims 1-4 replaced by new claims 1-6 - (2 pages)]

Sluice system for a vacuum coating facility

1. Sluice system for a vacuum facility for coating substrates that can be moved through the vacuum coating in at least one direction of conveyance, with a prevacuum sluice chamber to which a prevacuum pump system can be detachably connected by means of a first valve arrangement, characterized such that a high-vacuum pump system (12) is detachably connected to the prevacuum sluice (2) by means of a second valve arrangement (16) and the second valve arrangement (16) can be activated and deactivated inversely to the first valve arrangement (11).
2. Sluice system according to Claim 1, characterized such that a prevacuum pump system (6) exhibits at least one Root pump (7) as a main pump (8) and at least one rotary slide-valve pump (9) as a backing pump (10).
3. Sluice system according to Claim 1 or 2, characterized such that the high-vacuum system (12) exhibits at least one turbo-molecular pump (13) as a main pump (14) and at least one backing pump arrangement (19), which corresponds to the arrangement of the prevacuum pump system (12).

4. Sluice system according to Claims 1 to 3, characterized such that the prevacuum pump system (6) can be detachably connected to the high-vacuum system (12).
5. Sluice system according to Claim 4, characterized such that the prevacuum pump system (6) can be activated in such a way that it is directly connected to the prevacuum sluice chamber (2) in a first operating state and, alternatively to this, is activated in a second operating state as a backing pump arrangement (19) of the high-vacuum pump (12), whereby the high-vacuum pump system (12) exhibits a support pump (15), which is activated in the first operating state as a backing pump arrangement (19) of the high-vacuum pump system (12).
6. Sluice system according to Claim 5, characterized such that the pressure side of the main pump (14) of the high-vacuum pump system (12) is connected to the intake side of the support pump (15) and detachably connected to the intake side of the main pump (8) of the prevacuum pump system (6) parallel to the support pump (15) by means of a bypass line (17) and a bypass valve (18), whereby the bypass valve (18) can be activated inversely to the first valve arrangement (11).